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REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Jun 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Jun 2010

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2010.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

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L3              STR
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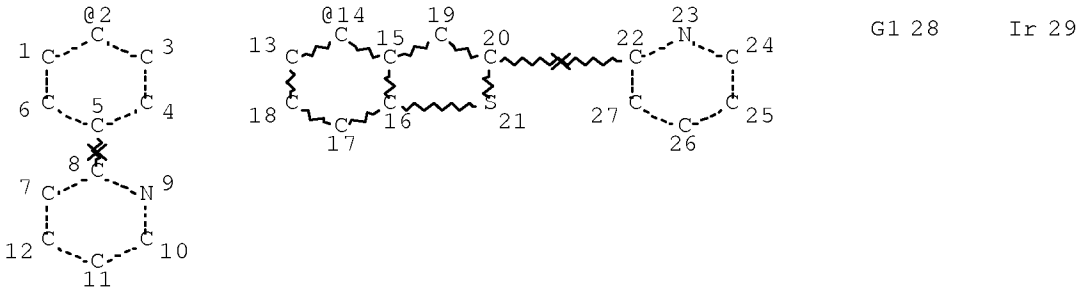


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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  29
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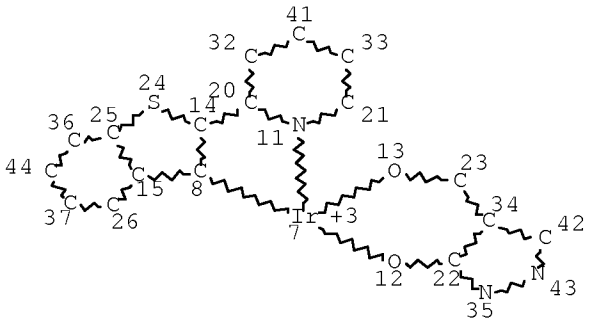

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DEFAULT ECLEVEL IS LIMITED

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L45 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:734542 HCAPLUS Full-text
DOCUMENT NUMBER: 145:198513
TITLE: Electroluminescent device fabrication by spin coating electroluminescent organometallic complexes on coated substrates
INVENTOR(S): Kathirgamanathan, Poopathy; Ganeshamurugan, Subramaniam; Price, Richard
PATENT ASSIGNEE(S): Oled-T Limited, UK
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006077402	A1	20060727	WO 2006-GB169	20060119

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,

SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW
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CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

EP 1839464	A1	20071003	EP 2006-702771	20060119
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CN 101107884	A	20080116	CN 2006-80002852	20060119
JP 2008529212	T	20080731	JP 2007-551736	20060119
US 20080160182	A1	20080703	US 2007-795007	20070710
IN 2007DN05397	A	20070817	IN 2007-DN5397	20070712
KR 2007102556	A	20071018	KR 2007-718852	20070817
PRIORITY APPLN. INFO.:			GB 2005-1426 A	20050122
			WO 2006-GB169 W	20060119

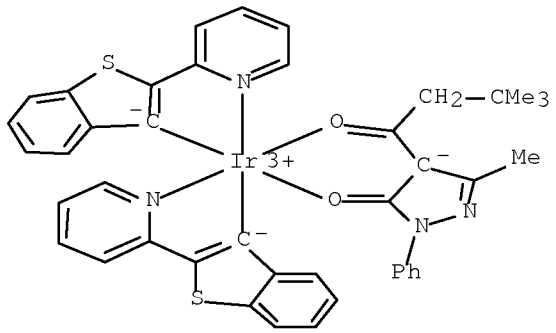
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 145:198513

AB Methods of forming electroluminescent devices are described which entail depositing by spin coating a layer of an electroluminescent organometallic complex on a substrate (which is the anode) which is coated with a layer of a polymer. The polymer is preferably a conductive or charge-transporting polymer or material.

IT 863714-50-5
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(electroluminescent device fabrication by spin coating electroluminescent organometallic complexes on coated substrates)

RN 863714-50-5 HCAPLUS

CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2-phenyl-2,4-dihydro-5-methyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)benzo[b]thien-3-yl-κC]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:962358 HCAPLUS Full-text
DOCUMENT NUMBER: 143:275247
TITLE: Electroluminescent organometallic materials and their preparation and devices using them
INVENTOR(S): Kathirgamanathan, Poopathy; Price, Richard;

Ganeshamurugan, Subramaniam; Paramaswara, Gnanamoly; Kumaraverl, Muttulingham; Partheepan, Arumugam; Selvaranjan, Selvadurai; Antipan-Lara, Juan; Surendrakumar, Sivagnanasundram

PATENT ASSIGNEE(S): Elam-T Limited, UK
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005080526	A2	20050901	WO 2005-GB446	20050210
WO 2005080526	A3	20051103		
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1723213	A2	20061122	EP 2005-708271	20050210
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JP 2007524680	T	20070830	JP 2006-552679	20050210
KR 2007004719	A	20070109	KR 2006-718827	20060914
US 20090009060	A1	20090108	US 2007-589183	20070808

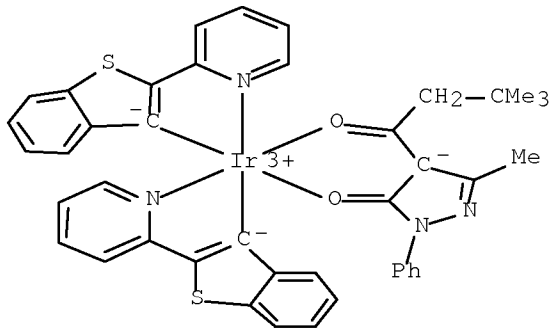
PRIORITY APPLN. INFO.: GB 2004-3322 A 20040214
WO 2005-GB446 W 20050210
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 143:275247
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Electroluminescent compds. are described by the general formula I, II, and III (R1-6 = independently selected H, (un)substituted hydrocarbyl groups such as (un)substituted aliphatic groups, (un)substituted aromatic, heterocyclic and polycyclic ring structures, fluorocarbons such as trifluoryl Me groups, halogens such as F, or thiophenyl groups; R1, R2 and R3 can form (un)substituted fused aromatic, heterocyclic and polycyclic ring structures and can be copolymerizable with a monomer, e.g. styrene; M = ruthenium, rhodium, palladium, osmium, iridium, or platinum; and n+2 is the valency of M). Methods of preparing the compds. are also described which entail reacting a bridged complex with an appropriate ligand. Electroluminescent devices employing the materials are also described.

IT 863714-50-5P
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(electroluminescent organometallic materials and their preparation and

devices using them)
RN 863714-50-5 HCAPLUS
CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2-phenyl-2,4-dihydro-5-methyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)benzo[b]thien-3-yl-κC]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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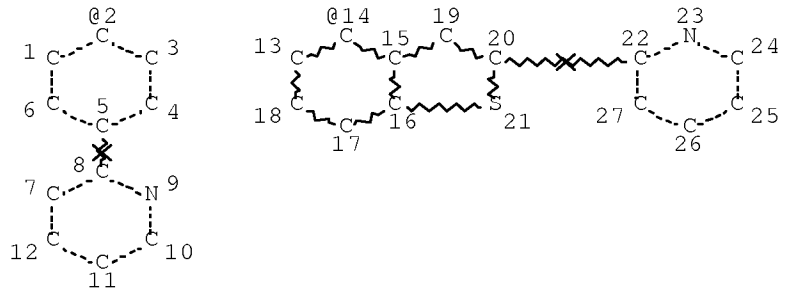

VAR G1=2/14
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NUMBER OF NODES IS 29

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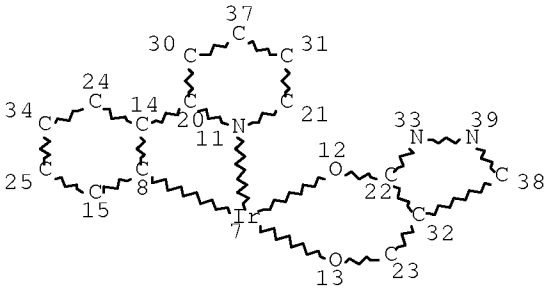

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NUMBER OF NODES IS 21

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L46 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L44

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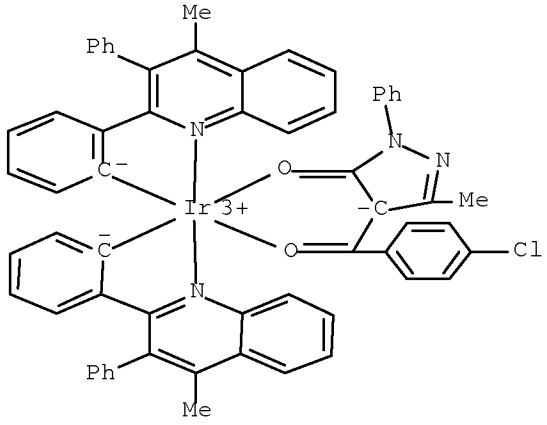
L46 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:1006165 HCAPLUS Full-text
DOCUMENT NUMBER: 153:321072
TITLE: Introduction of new ancillary ligands to the iridium complexes having 2,3-diphenylquinolinato ligands for OLED
AUTHOR(S): Lee, Hyun Shin; Ahn, So Youn; Huh, Hyun Sue; Ha, Yunkyoung
CORPORATE SOURCE: Department of Information Display, Hongik University, 72-1 Mapo-gu Sangsoo-dong, Seoul, 121-791, S. Korea
SOURCE: Journal of Organometallic Chemistry (2009), 694(20), 3325-3330
CODEN: JORCAI; ISSN: 0022-328X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effect was studied of an ancillary ligand (AL) on the emission color and luminous efficiencies of its complex, Ir(4-Me-2,3-dpq)2(AL), where 4-Me-2,3-dpq represents 4-Me-2,3-diphenylquinolinato ligand. It was expected that ancillary ligand modification by introduction of the bulky substituent to the complexes might allow luminous efficiency increase by reduction of T-T annihilation. Some ancillary ligands may contribute to fine-tuning of their complex emission colors by influencing the energy level of Ir d-orbitals upon the orbital mixing. As new ancillary ligands substituting for acac which is a typical AL in the Ir complexes, pyrazolone-based ligands, 4-R-5-Me-2-phenyl-2,4-dihydro-pyrazol-3-one series (przl-R), were prepared, where R represents C6H5, C6H4CH3 and C6H4Cl. These ligands were chelated to the Ir center to yield the Ir complexes, Ir(4-Me-2,3-dpq)2(przl-R). The x-ray crystal structure of Ir(4-Me-2,3-dpq)2(przl-C6H4Cl) was determined The electrochem. and luminescence properties of the Ir complexes were studied. The effect of the przl-substituents on the emission colors of the complexes was not

significant. The luminous efficiencies of Ir(4-Me-2,3-dpq)2(prz1-C6H5) and Ir(4-Me-2,3-dpq)2(prz1-C6H4CH3) were higher than that of Ir(4-Me-2,3-dpq)2(acac).

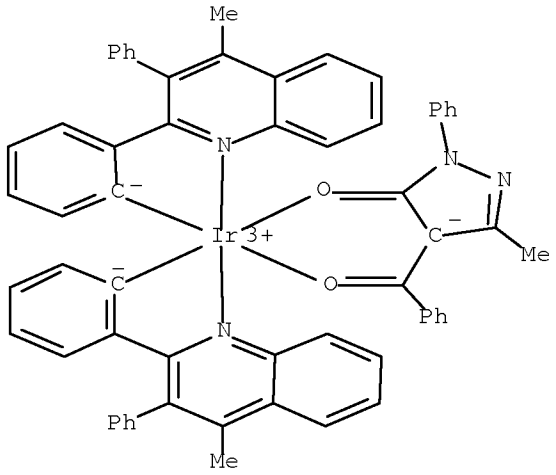
IT 1239951-39-3P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and crystal and mol. structure and electrochem. and optical properties of)

RN 1239951-39-3 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



IT 1239951-37-1P 1239951-38-2P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and electrochem. and optical properties of)

RN 1239951-37-1 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



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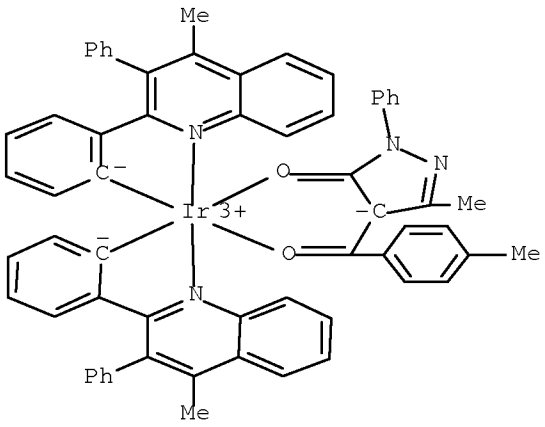
CN INDEX NAME NOT YET ASSIGNED



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L46 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2007:769202 HCAPLUS Full-text
DOCUMENT NUMBER: 147:352801
TITLE: Red to near-infrared electrophosphorescence from an iridium complex coordinated with 2-phenylpyridine and 8-hydroxyquinoline
AUTHOR(S): Yi, Chun; Yang, Chang-Jian; Liu, Jian; Xu, Min; Wang, Jiang-Huai; Cao, Qian-Yong; Gao, Xi-Cun
CORPORATE SOURCE: Department of Chemistry, School of Science, Nanchang University, Nanchang, 330047, Peop. Rep. China
SOURCE: Inorganica Chimica Acta (2007), 360(11), 3493-3498
CODEN: ICHAA3; ISSN: 0020-1693
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 147:352801

AB An Ir complex coordinated with 2-phenylpyridine (ppy) and 8-hydroxyquinoline (q), ppy2Irq, was synthesized and its thermal stability, absorption, photoluminescence, crystal structure and electrophosphorescence were characterized. The m.p. of this material reaches ≤374° and does not suffer decomposition upon heating at high vacuum therefore can be well sublimated. When ppy2Irq was used as a guest emitting material in the electrophosphorescent device, the emission is 100% saturated red light starting at .apprx.600 nm, extending into the near-IR region. The bathochromic shift, compared to the fluorescence and phosphorescence from Alq3, Ptq2 and Ir(ppy)3, was analyzed to originate from the triplet excited state of 8-hydroxyquinoline ligand and the crystal structure anal. excludes the origin of π-π intermol. interactions.

IT 913530-49-1
RL: PRP (Properties)
(comparison with data for; red to near-IR electrophosphorescence from an iridium complex coordinated with 2-phenylpyridine and 8-hydroxyquinoline)

RN 913530-49-1 HCAPLUS
CN Iridium, [2,4-dihydro-5-methyl-4-[2-methyl-1-(oxo-κO)propyl]-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)phenyl-

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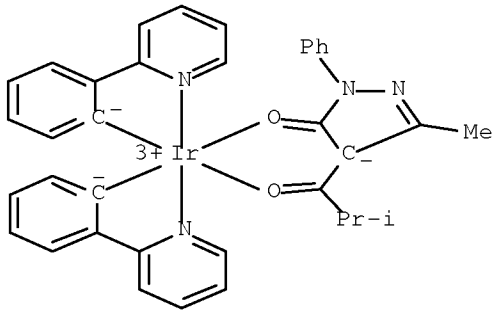

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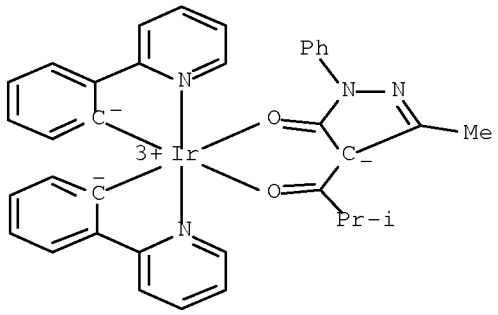
L46 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:902543 HCAPLUS Full-text
DOCUMENT NUMBER: 145:471663
TITLE: Synthesis, crystallography and photoluminescence of a new pyrazolonato iridium complex
AUTHOR(S): Yi, Chun; Cao, Qian-Yong; Yang, Chang-Jian; Huang, Li-Qun; Wang, Jiang Huai; Xu, Min; Liu, Jian; Qiu, Ping; Gao, Xi-Cun; Li, Zhi-Feng; Wang, Ping
CORPORATE SOURCE: Department of Chemistry, School of Science, Nanchang University, Nanchang, JiangXi, 330047, Peop. Rep. China
SOURCE: Inorganica Chimica Acta (2006), 359(13), 4355-4359
CODEN: ICHAA3; ISSN: 0020-1693
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 145:471663

AB By using 1-phenyl-3-methyl-4-isobutyryl-5-pyrazolone (pmip) as the ancillary ligand, the cyclometalated complex: bis-(2-phenylpyridine)-(pmip)-iridium [(ppy)2Ir(pmip)] was synthesized. Its crystal structure, absorption and emission were compared with those of its analog, the frequently used electrophosphorescent material (ppy)2Ir(dbm) [bis-(2-phenylpyridine)-(dibenzoylmethane) iridium]. For (ppy)2Ir(pmip) in dichloromethane, the emission is highly structured and the intensity is 5 times higher than that of (ppy)2Ir(dbm). It is a result of the higher triplet energy level of pmip relative to that of dbm. In solid state, green emission of (ppy)2Ir(pmip) peaked at 550 nm was observed with a quantum efficiency 0.31% in contrast to the emission at 626 nm with a quantum efficiency of 0.76% for (ppy)2Ir(dbm). The bathochromical shift and higher efficiency in crystallized (ppy)2Ir(dbm) was explained by the stronger π-π intermol. interactions which is unique to in solid state (ppy)2Ir(dbm) crystals.

IT 913530-49-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystal structure; preparation, crystallog., and photoluminescence of cyclometalated phenylpyridine pyrazolonato iridium complex)
RN 913530-49-1 HCAPLUS
CN Iridium, [2,4-dihydro-5-methyl-4-[2-methyl-1-(oxo-κO)propyl]-2-

phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)phenyl-κC]-, (OC-6-44)- (CA INDEX NAME)



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L46 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:734542 HCAPLUS Full-text
DOCUMENT NUMBER: 145:198513
TITLE: Electroluminescent device fabrication by spin coating electroluminescent organometallic complexes on coated substrates
INVENTOR(S): Kathirgamanathan, Poopathy; Ganeshamurugan, Subramaniam; Price, Richard
PATENT ASSIGNEE(S): Oled-T Limited, UK
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006077402	A1	20060727	WO 2006-GB169	20060119
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1839464	A1	20071003	EP 2006-702771	20060119
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CN 101107884	A	20080116	CN 2006-80002852	20060119

JP 2008529212	T	20080731	JP 2007-551736	20060119
US 20080160182	A1	20080703	US 2007-795007	20070710
IN 2007DN05397	A	20070817	IN 2007-DN5397	20070712
KR 2007102556	A	20071018	KR 2007-718852	20070817
PRIORITY APPLN. INFO.:			GB 2005-1426 A	20050122
			WO 2006-GB169 W	20060119

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 145:198513

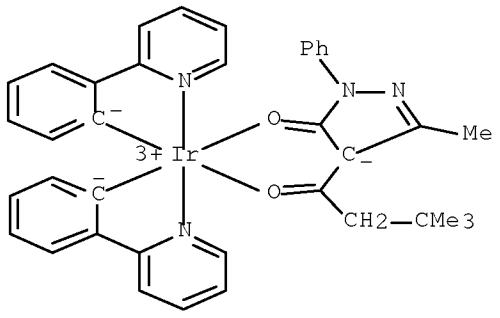
AB Methods of forming electroluminescent devices are described which entail depositing by spin coating a layer of an electroluminescent organometallic complex on a substrate (which is the anode) which is coated with a layer of a polymer. The polymer is preferably a conductive or charge-transporting polymer or material.

IT 647838-95-7

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(electroluminescent device fabrication by spin coating electroluminescent organometallic complexes on coated substrates)

RN 647838-95-7 HCAPLUS

CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER:	2006:553352 HCAPLUS Full-text
DOCUMENT NUMBER:	145:211157
TITLE:	Synthesis and Photophysical, Electrochemical, and Electrophosphorescent Properties of a Series of Iridium(III) Complexes Based on Quinoline Derivatives and Different β-Diketonate Ligands
AUTHOR(S):	Zhao, Qiang; Jiang, Chang-Yun; Shi, Mei; Li, Fu-You; Yi, Tao; Cao, Yong; Huang, Chun-Hui
CORPORATE SOURCE:	Laboratory of Advanced Materials, Fudan University, Shanghai, 200433, Peop. Rep. China
SOURCE:	Organometallics (2006), 25(15), 3631-3638 CODEN: ORGND7; ISSN: 0276-7333
PUBLISHER:	American Chemical Society
DOCUMENT TYPE:	Journal
LANGUAGE:	English
OTHER SOURCE(S):	CASREACT 145:211157

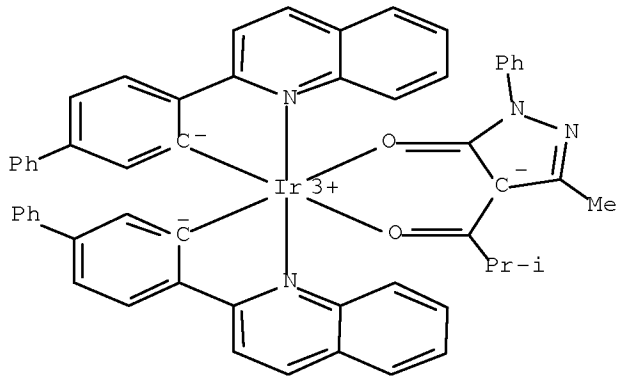
AB The synthesis and photophys., electrochem., and electrophosphorescent properties of a series of cyclometalated iridium(III) complexes based on quinoline derivs. (C-N) and different β-diketonate ligands are reported. The iridium complexes contain two quinoline derivs. (C-N) and a single monoanionic β-diketone (LX), i.e., Ir(C-N)2(LX), where LX denotes acetylacetonate (acac) or 1-phenyl-3-methyl-4-isobutyryl-5- pyrazolonate (PMIP). Most of the iridium complexes in solution show phosphorescent emission with high quantum efficiencies (0.05-0.25) and microsecond lifetimes (0.5-1.67 μs). The intense phosphorescent emission of these complexes is the result of significant spin-orbit coupling of the iridium center. By modification of the chemical structures of quinoline derivative ligands, the emissive wavelengths of complexes can be tuned from 596 to 634 nm. Interestingly, the photoluminescence quantum efficiency can be improved by the replacement of acac with PMIP. Energy transfer from the hosts poly(9,9-dioctylfluorene) (PFO) and 2-(4-biphenylyl)-5-(4-tert-butylphenyl)-1,3,4-oxadiazole (PBD) to the guest iridium complex was investigated. Moreover, three iridium complexes were used as dopants to fabricate electrophosphorescent polymer-based light-emitting diodes (PLEDs). The PLEDs show red emission with high external quantum efficiencies, ranging from 7.0 to 9.6%.

IT 904925-88-8P

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(preparation, photophys., electrochem., and electrophosphorescent properties of cyclometalated iridium complexes based on quinoline derivs. and different diketonate ligands)

RN 904925-88-8 HCAPLUS

CN Iridium, [2,4-dihydro-5-methyl-4-[2-methyl-1-(oxo-κO)propyl]-2-phenyl-3H-pyrazol-3-onato-κO3]bis[4-(2-quinolinyl-κN)[1,1'-biphenyl]-3-yl-κC]-, (OC-6-44)- (9CI) (CA INDEX NAME)

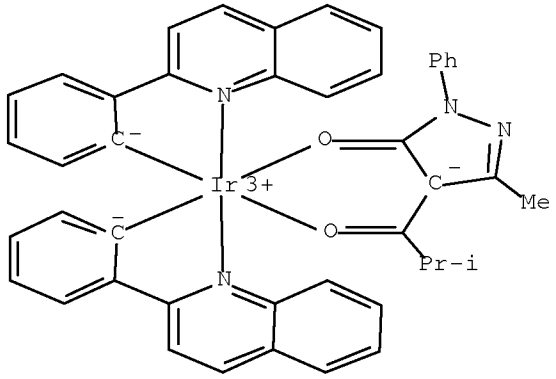


IT 904925-87-7P 904925-90-2P 904925-91-3P
904925-92-4P

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation, photophys., electrochem., and electrophosphorescent properties of cyclometalated iridium complexes based on quinoline derivs. and different diketonate ligands)

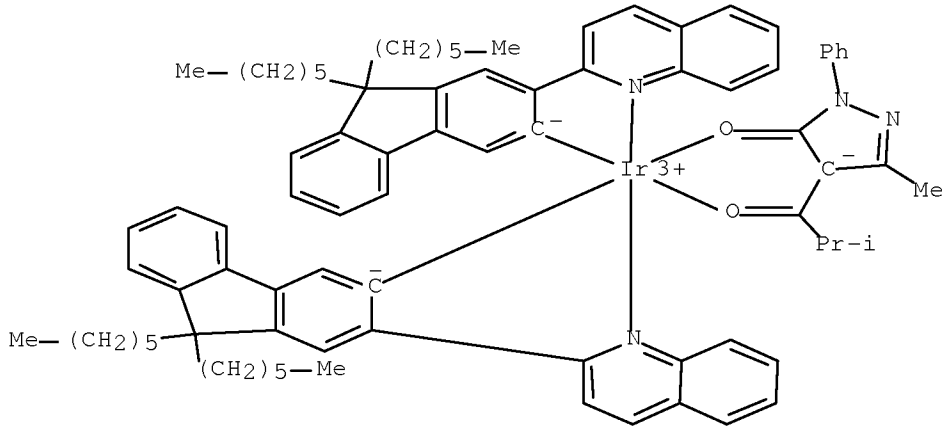
RN 904925-87-7 HCAPLUS

CN Iridium, [2,4-dihydro-5-methyl-4-[2-methyl-1-(oxo-κO)propyl]-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-quinolinyl-κN)phenyl-κC]-, (OC-6-44)- (CA INDEX NAME)



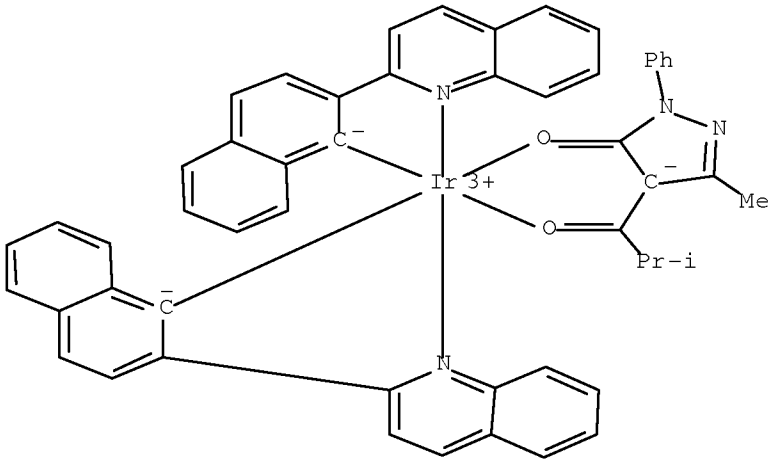
RN 904925-90-2 HCAPLUS

CN Iridium, bis[9,9-dihexyl-2-(2-quinolinyl-κN)-9H-fluoren-3-yl-κC][2,4-dihydro-5-methyl-4-[2-methyl-1-(oxo-κO)propyl]-2-phenyl-3H-pyrazol-3-onato-κO3]-, (OC-6-44)- (9CI) (CA INDEX NAME)

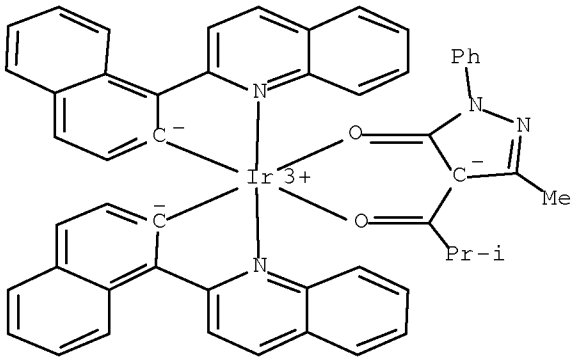


RN 904925-91-3 HCAPLUS

CN Iridium, [2,4-dihydro-5-methyl-4-[2-methyl-1-(oxo-κO)propyl]-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-quinolinyl-κN)-1-naphthalenyl-κC]-, (OC-6-44)- (9CI) (CA INDEX NAME)



RN 904925-92-4 HCAPLUS
CN Iridium, [2,4-dihydro-5-methyl-4-[2-methyl-1-(oxo-κO)propyl]-2-phenyl-3H-pyrazol-3-onato-κO3]bis[1-(2-quinolinyl-κN)-2-naphthalenyl-κC]-, (OC-6-44)- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 30 THERE ARE 30 CAPLUS RECORDS THAT CITE THIS RECORD (30 CITINGS)
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:439982 HCAPLUS Full-text
DOCUMENT NUMBER: 144:458233
TITLE: Electroluminescent devices with anode buffer layers
INVENTOR(S): Kathirgamanathan, Poopathy; Ganeshamurugan, Subramaniam; Kumaraverl, Muttulingham; Partheepan, Arumugam; Paramaswara, Gnanamoly
PATENT ASSIGNEE(S): Nuko 70 Limited, UK
SOURCE: PCT Int. Appl., 89 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006048635	A1	20060511	WO 2005-GB4222	20051101
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1812530	A1	20070801	EP 2005-800128	20051101
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2008519427	T	20080605	JP 2007-538521	20051101
US 20080199727	A1	20080821	US 2007-666766	20070625

PRIORITY APPLN. INFO.: GB 2004-24294 A 20041103
WO 2005-GB4222 W 20051101

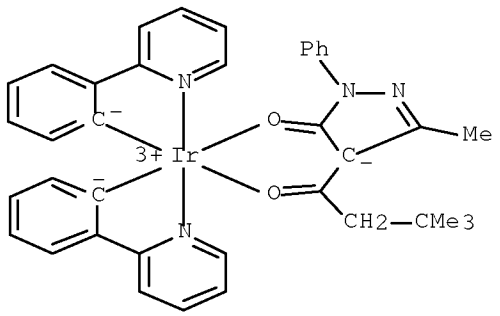
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Electroluminescent devices are described which are provided with a buffer layer on the anode, the buffer material being selected from metal tetra-p-tolyl porphinato complexes and bianthryl compds. [9,9'-Bianthracene]-10,10'-diamine, N,N'-di-2-naphthalenyl-N,N'-diphenyl- [223735-42-0] or [9,9'-Bianthracene]-10,10'-diamine, N,N'-di-1-naphthalenyl-N,N'-diphenyl-. The electroluminescent materials may be organometallic compds., including multinuclear complexes.

IT 647838-95-7
RL: DEV (Device component use); USES (Uses)
(electroluminescent devices with anode buffer layers)

RN 647838-95-7 HCAPLUS

CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:962358 HCAPLUS Full-text
DOCUMENT NUMBER: 143:275247
TITLE: Electroluminescent organometallic materials and their preparation and devices using them
INVENTOR(S): Kathirgamanathan, Poopathy; Price, Richard; Ganeshamurugan, Subramaniam; Paramaswara, Gnanamoly; Kumaraverl, Muttulingham; Partheepan, Arumugam; Selvaranjan, Selvadurai; Antipan-Lara, Juan; Surendrakumar, Sivagnanasundram
PATENT ASSIGNEE(S): Elam-T Limited, UK
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005080526	A2	20050901	WO 2005-GB446	20050210
WO 2005080526	A3	20051103		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1723213	A2	20061122	EP 2005-708271	20050210
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2007524680	T	20070830	JP 2006-552679	20050210
KR 2007004719	A	20070109	KR 2006-718827	20060914
US 20090009060	A1	20090108	US 2007-589183	20070808

PRIORITY APPLN. INFO.: GB 2004-3322 A 20040214
WO 2005-GB446 W 20050210
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 143:275247
GI

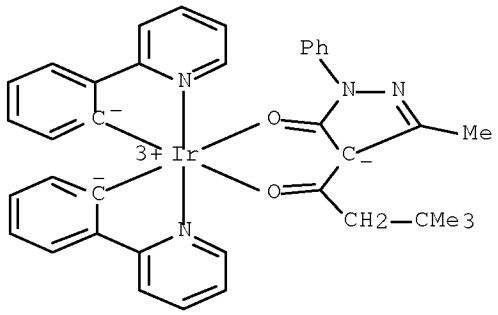
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Electroluminescent compds. are described by the general formula I, II, and III (R1-6 = independently selected H, (un)substituted hydrocarbyl groups such as (un)substituted aliphatic groups, (un)substituted aromatic, heterocyclic and polycyclic ring structures, fluorocarbons such as trifluoryl Me groups, halogens such as F, or thiophenyl groups; R1, R2 and R3 can form (un)substituted fused aromatic, heterocyclic and polycyclic ring structures and can be copolymerizable

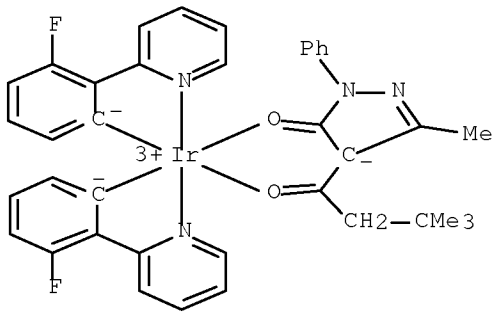
with a monomer, e.g. styrene; M = ruthenium, rhodium, palladium, osmium, iridium, or platinum; and n+2 is the valency of M). Methods of preparing the compds. are also described which entail reacting a bridged complex with an appropriate ligand. Electroluminescent devices employing the materials are also described.

IT 647838-95-7P 863714-47-0P 863714-48-1P 863714-49-2P
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(electroluminescent organometallic materials and their preparation and devices using them)

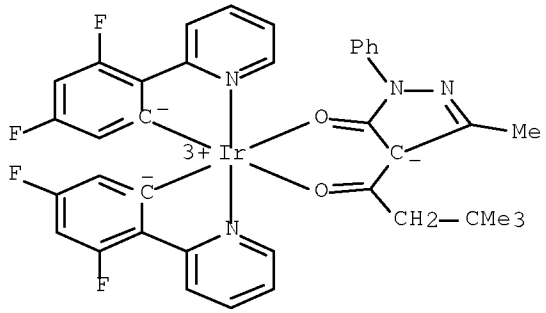
RN 647838-95-7 HCAPLUS
CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)



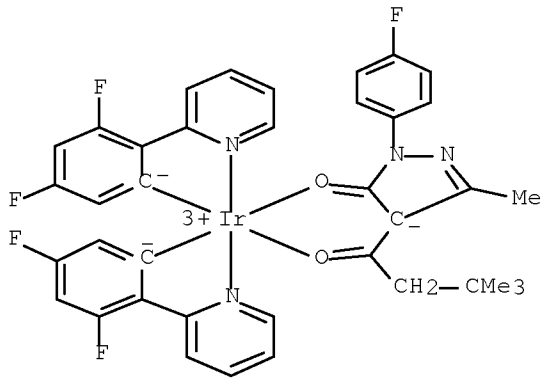
RN 863714-47-0 HCAPLUS
CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]bis[3-fluoro-2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)



RN 863714-48-1 HCAPLUS
CN Iridium, bis[3,5-difluoro-2-(2-pyridinyl-κN)phenyl-κC][4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



RN 863714-49-2 HCAPLUS
CN Iridium, bis[3,5-difluoro-2-(2-pyridinyl-κN)phenyl-κC][4-[3,3-dimethyl-1-(oxo-κO)butyl]-2-(4-fluorophenyl)-2,4-dihydro-5-methyl-3H-pyrazol-3-onato-κO3]- (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:60874 HCAPLUS Full-text
DOCUMENT NUMBER: 140:114240
TITLE: Metal chelates in a photovoltaic device
INVENTOR(S): Kathirgamanathan, Poopathy; Antipan-Lara, Juan; Partheepan, Arumugam
PATENT ASSIGNEE(S): Elam-Limited, UK
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004008554	A2	20040122	WO 2003-GB3035	20030714
WO 2004008554	A3	20041111		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003281003 A1 20040202 AU 2003-281003 20030714
PRIORITY APPLN. INFO.: GB 2002-16154 A 20020712
WO 2003-GB3035 W 20030714

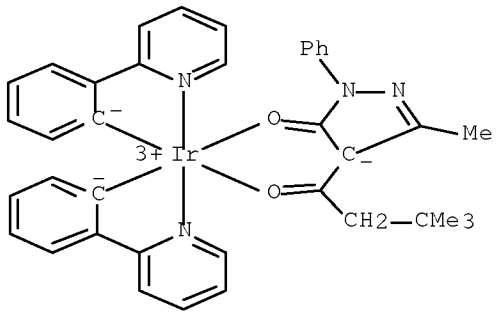
OTHER SOURCE(S): MARPAT 140:114240

AB A photovoltaic device uses a metal chelate as the photovoltaic element. The device comprises sequentially (1) a first electrode comprising a metal, (2) the photovoltaic element, and (3) a second electrode. The photovoltaic element comprises an organometallic complex with an organic ligand and a metal (a rare earth, transition metal, lanthanide, or an actinide).

IT 647838-95-7
RL: DEV (Device component use); USES (Uses)
(metal chelates in photovoltaic device)

RN 647838-95-7 HCAPLUS

CN Iridium, [4-[3,3-dimethyl-1-(oxo-κO)butyl]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-onato-κO3]bis[2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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